

REMARKS

This amendment is in response to the Official Action dated May 29, 2008. Claims 10, 14, 19, 21, 25, and 28 have been amended, and claims 13 and 26 have been canceled; as such claims 10-14, 17-25, and 27-29 are now pending in this application. Claims 10, 13, 14, 19 and 25 are independent claims. Reconsideration and allowance is requested in view of the claim amendments and the following remarks. No new matter has been added by this amendment.

Example Embodiment

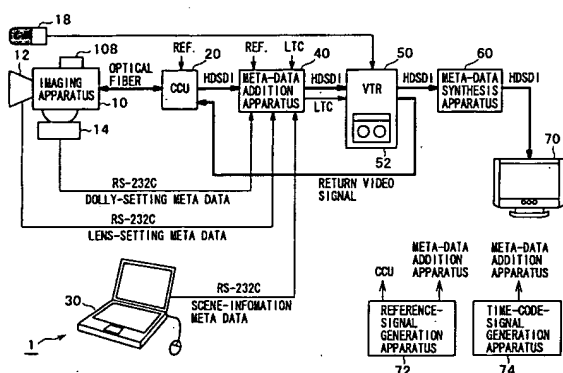


Fig. 1 illustrates an example embodiment of the present invention directed to an imaging system. The imaging system includes an imaging apparatus 10 (e.g., a camera), camera control unit 20, meta-data addition apparatus 40, a videotape recorder 50, meta-data synthesis apparatus 60, sound recorder 18, display 70, and input terminal 30. Imaging apparatus

10 produces a video signal that passes to meta-data addition apparatus 40 via camera control unit 20. Imaging apparatus 10 may include a lens 12 and a dolly 14. The lens 12 and dolly 14 maintain setting information, which is passed to the meta-data addition apparatus. Dolly 14 serves to position and track the location of imaging apparatus 10. Data input terminal 30 also provides meta-data associated with a current video signal. The meta-data addition apparatus 40 may combine various meta-data from the lens 12, dolly 14, and data input terminal 30 with the video signal received from the camera control unit to produce a combined video signal. Videotape recorder 50 records the combined video signal and data from sound recorder 18. The combined video from the videotape recorder may pass to meta-data synthesis apparatus 60, which may synthesize the meta-data and video signal, superimposing the meta-data on the video signal and passing the synthesized video signal to display 70. Display 70 may or may not be part of the imaging apparatus 10. The synthesized video allows a user to view a synthesized video, and thereby monitor various settings and conditions of the imaging apparatus and video signal.

Rejections under 35 U.S.C. § 102

Claims 10-12, 14, 17-20, and 23-27 have been rejected under 35 U.S.C. § 102 as being anticipated by US patent publication 2002/00198332 Hanamoto et al. ("Hanamoto").

By example, claim 10 recites:

A video-signal recording/reproduction apparatus comprising:
a recording/reproduction unit for recording and reproducing a video signal generated by an imaging apparatus as a video signal with every frame thereof including additional meta data related to said video signal onto and from a recording medium; and
a meta-data synthesis apparatus for extracting at least a part of said meta data from said video signal including said meta data added to every frame and synthesizing said extracted part with said video signal;
wherein said imaging apparatus receives, from said recording/reproduction unit, said video signal including said meta data and displays said meta-data, from said video signal, at the imaging apparatus.

With respect to claim 10, Hanamoto does not teach or suggest “*wherein said imaging apparatus receives, from said recording/reproduction unit, said video signal including said meta data and displays said meta-data, from said video signal, at the imaging apparatus.*”

Hanamoto discloses an imaging apparatus for capturing media (i.e., image and/or video) files and storing related meta-data associated with each resulting image (¶34, Fig. 2B). In particular, Hanamoto relates to image and video capture devices in wide domestic use (¶2). The meta-data comprises two separate parts. The first part consists of meta-data appended to the media file, which provides location information and/or identifies a second meta-data (e.g., by file name); the second part consists of meta-data which is kept independent of the media file and includes

additional information relating to an image (Fig. 2B). Each media file in Hanamoto includes a single pair of meta-data portions: the appended, first part and the independent, second part.

Hanamoto does not disclose that the *said imaging apparatus receives, from said recording/reproduction unit*. Furthermore, Hanamoto does not teach or suggest displaying the meta-data at the imaging apparatus. Hanamoto provides no disclosure or suggestion that the meta-data is provided to the imaging apparatus.

Furthermore, Hanamoto does not teach or suggest “*a video signal with every frame thereof including additional meta data related to said video signal.*”

Nowhere does Hanamoto disclose that the meta-data is extracted and synthesized with the video as disclosed in claim 10. Fig. 14 and 15 of the present specification illustrate a synthesized video including extracted meta-data in the form of a scene, take, shutter speed, zoom, and movement speed information. Hanamoto does not disclose an addition apparatus for combining meta-data and frames of a video image, and transmitting the result to a recorder and an imaging apparatus. Hanamoto only discusses using the meta-data to store and search image and video data. Hanamoto not disclose combining the image and meta-data into a synthesized video signal.

The Office Action responds, stating:

The claim does not state that each frame includes separate meta data, so the common meta data included with the video data reads on the claim. The Hanamoto reference further discloses the meta data may be divided between segments of the video data that can be divided according to frame or time (see para 118).

However, this position is clearly incorrect given that the claim clearly recites “*a video signal with every frame thereof including additional meta data related to said video signal.*” The fact that the meta-data is added to every frame is distinct from the disclosure in Hanamoto where meta-data is added to a file as a basis for searching a media file based on the content of the meta-data.

Amended claim 14 recites: *[a] meta-data display method for displaying meta data related to a video signal generated by an image capture apparatus, said meta-data display method comprising the steps of:*

extracting at least a part of said meta data added to said video signal of every frame from said video signal and synthesizing said extracted part with said video signal; and

displaying said synthesized meta data, from said video signal including said synthesized meta data, on a display apparatus provided in said image capture apparatus;

wherein said meta data added to said video signal includes scene-information meta data, which is meta data related to a scene shot by said image capture apparatus.

With respect to claim 14, Applicant submits that Hanamoto does not teach or suggest “*displaying said synthesized meta data, from said video signal including said synthesized meta data, on a display apparatus provided in said image capture apparatus.*”

Hanamoto only discloses the use of meta-data to produce albums and search pictures using the terms set forth in the meta-data. However, Hanamoto does not disclose that the display apparatus is a part of the imaging apparatus.

The Office Action cites to display device 1103 in Hanamoto as the basis for rejecting this portion of claim 14. However, paragraphs 0106-0107 of Hanamoto recite:

[0106] In FIG. 10, numeral 1100 denotes a data input/output device which performs data input/output; 1101, an input device including a keyboard and a pointing device such as a mouse, which inputs instructions and data from the ser; and 1102, a storage device such as a hard disk in which binary data as moving image data to be edited and meta data linked to the binary data are stored.

[0107] Numeral 1103 denotes a display device which displays a QUI and images under the control of CPU 1104. As the display device 1103, a CRT, a liquid crystal display or the like is used. The CPU 104 relates to all the

processings at the above-described elements. Numerals 1105 and 1106 denote a ROM and a RAM which provide programs, data, work area and the like necessary for various processings to the CPU 1104. Note that control programs necessary for the respective processings as shown in the flowcharts of FIG. 13 and the subsequent figures are stored in the storage device 1102 or the ROM 1105. If the control programs are stored in the storage device 1102, the programs are temporarily read into the RAM 1106 then executed by the CPU 1104.

Nowhere in the publication does Hanamoto disclose that the display device in Fig. 10 is or includes an image capture apparatus. Furthermore, there is no disclosure that “*displaying said synthesized meta data*” is performed” *on a display apparatus provided in said image capture apparatus.*”

Claim 19 recites:

A meta-data display system for displaying meta-data related to a video signal, comprising:

an imaging apparatus that captures video content and generates the video signal and meta-data associated with each frame of the video signal, and having a display adapted to display the meta-data of the captured video content synchronously with the real-time video captured by the imaging apparatus;

a meta-data addition apparatus that receives the meta-data and the video signal and combines the meta-data associated with each frame of the video signal and the video signal, and outputs a combined video signal;

a storage device for storing the combined video signal;

a meta-data synthesis apparatus that synthesizes the combined video signal to produce a synthesized video signal, the synthesized video signal including the video signal where each frame is visually combined with at least a portion of the meta-data associated with that frame;

a display for displaying the synthesized video signal; and

wherein the imaging apparatus receives the combined video signal from the meta-data addition apparatus, and the display on the imaging apparatus displays the meta-data from the combined video signal.

With respect to claim 19, Hanamoto also fails to teach or suggest *“an imaging apparatus that captures video content and generates the video signal and meta-data associated with each frame of the video signal, and having a display adapted to display the meta-data of the captured video content synchronously with the real-time video captured by the imaging apparatus.”*

Hanamoto's invention is directed to an image editing system. Hanamoto does not disclose an image capture system that provides immediate display of the meta-data on a display synchronously with real-time captured video. Hanamoto only discloses the use of meta-data to produce albums and search pictures using the terms set forth in the meta-data.

Hanamoto, therefore, fails to teach or suggest various features of independent claims 10, 14, and 19. Furthermore, at least for the reason disclosed above claims 17 and 18 overcome Hanamoto because they depend on independent claim 14.

Accordingly, Applicant respectfully requests that the rejection of independent claim 10, 14, 17, and 18 under 35 U.S.C. § 102(b) be withdrawn.

Claim 13 has been rejected under 35 U.S.C. § 102 as being anticipated by US patent number 6,954,319 to Yanagita et al. (“Yanagita”).

Claim 13 has been cancelled.

Claims 21-22 and 28 have been rejected under 35 U.S.C. § 103 as being unpatentable over Hanamoto in view of U.S. Pub. 2004/0086265 to Tojo et al. (“Tojo”).

As previously described Hanamoto does not disclose, teach or suggest at least the feature(s) of *“a display adapted to display the meta-data of the captured video content synchronously with the real-time video captured by the imaging apparatus”* and *“wherein the imaging apparatus receives the combined video signal from the meta-data addition apparatus, and the display on the imaging*

apparatus displays the meta-data from the combined video signal,” recited in claim 19. Dependent claims 21-22 depend on independent claim 19 and therefore include the features of independent claim 19. Dependent claim 28 depends on independent claim 25, which includes similar content to claim 19.

Tojo discloses a camera that combines meta-data and video images together using an MPEG-CODEC 26. The image device does not disclose that the meta-data is then sent back to the image capture unit for display.

Even assuming, *arguendo*, that Hanamoto and Tojo were combinable, Applicant submits that none of the cited references of Hanamoto and Tojo, either alone or in any proper combination, cure the deficiencies of Hanamoto with respect to at least the previously identified features of claims 19 and 25.

Therefore, Applicant respectfully requests that the rejection of claims 21-22 and 28 under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-2972 from which the undersigned is authorized to draw.

Dated: August 1, 2008

Respectfully submitted,

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